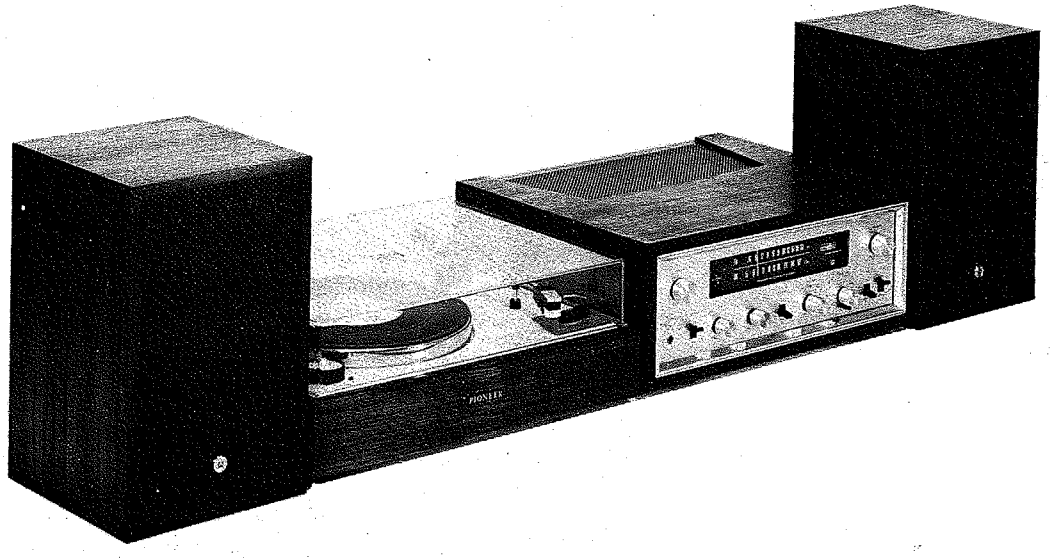
PIONEER®

HI-COMPACT STEREO SYSTEM INCLUDING AM/FM STEREO RECEIVER

MODEL C-2000

This component is a precision made hand-crafted product, the end result of meticulous research engineering, design and planning. It has been manufactured under strict quality control standards to insure you "Pride ownership".

INSTRUCTION MANUAL



PIONEER ELECTRONIC CORPORATION

PIONEER

FEATURES OF THE C-2000

High-Sensitivity FM Tuner: High-sensitivity FM front-end does full justice to excellent FM stereo broadcasts!

Unique FM Multiplex Circuitry: Time Switching circuit, known for its excellent channel separation and stability, offers you a true "you-are-there" feeling!

Thirty-Four Watts of Music Power: A large power reserve–an important factor in Hi-Fi! The C-2000 boasts its ample power output–34 watts (IHF Standard)!

Abundant Facilities: There is a wide selection of facilities–tone control, loudness contour, record/playback terminals, auxiliary terminals, etc.

Record Player Provided with Auto Return Device: The record player is equipped with a convenient automatic trip system; when a record is played out, the pickup arm returns to the arm rest automatically and shuts the player off automatically!

Handsome Appearance: New compact design without compromise! Wood parts handsomely finished in oiled walnut!

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WHERE TO INSTALL THE C-2000

Install your C-2000 with the following points in mind:

- The optimum stereo listening position is across the room from the speakers, somewhere close to the midpoint between the speakers. Therefore, a room corner or a closed-in place is not a good place for the C-2000 to be installed.
- Avoid a place where there is much vibration or where the floor is not level.
- Avoid a place which is directly exposed to the sun or where humidity is high. Such a place could damage the wood components and cause electrical troubles.
- Choose a place where an AC outlet is easily accessible and where antenna and ground wires can easily be installed. Get AC power from an exclusive wall outlet and not from a socket already used for other purposes.
- In installing the C-2000 in a place chosen with the above conditions in mind, secure a clearance of at least two inches between the rear of the receiver and the wall against which it is placed. If there were no clearance, the heat given off by the receiver and the record player motor would not be dissipated completely, and this could cause troubles.
- The C-2000 can usually be installed in any of the ways illustrated in Fig. 1. When operated in summer or for a long time in any season, however, (C) is not recommended because the heat accumulation is greater.
- If you have to place the record player on top of the receiver, choose a place where ventilation is espeially good.
- Other arrangements of the components are possible. It is wise to arrange according to the conditions in your particular listening room.
- If you want to mount the speaker systems on pillars or the wall, use the supplied metal devices. Each speaker system is provided with two metal pieces for such suspension, but one may be found enough. If only one piece is used, fasten it in the center of the speaker enclosure with screws.

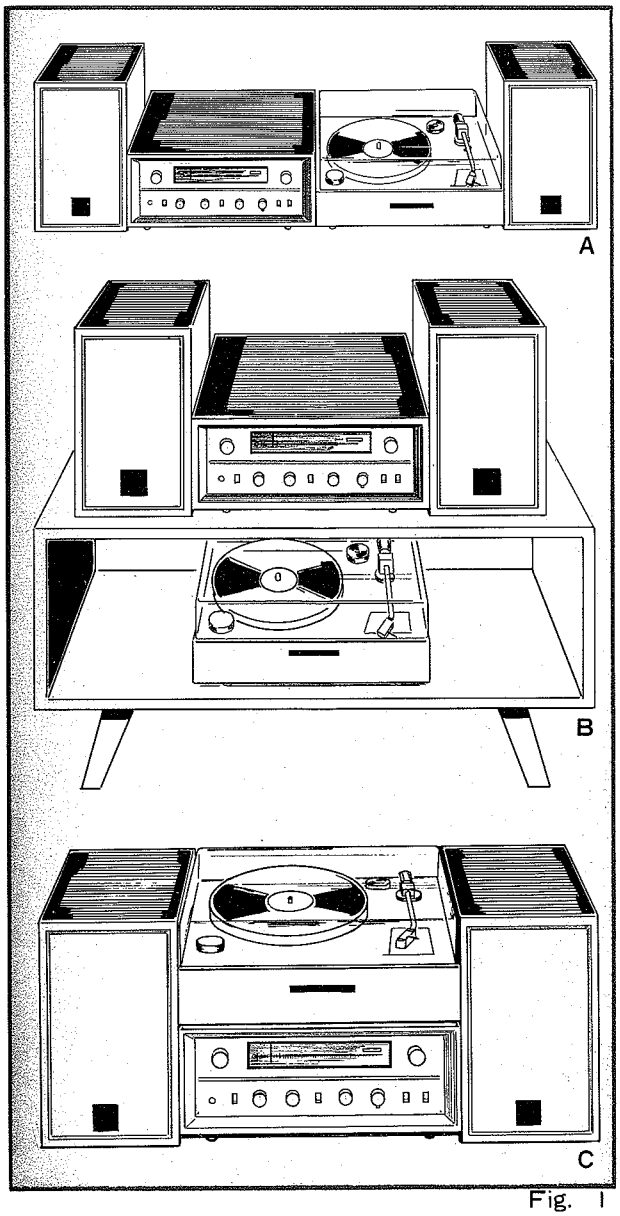


Fig. 1

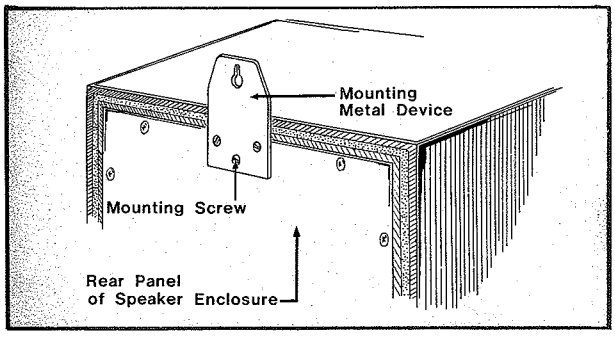
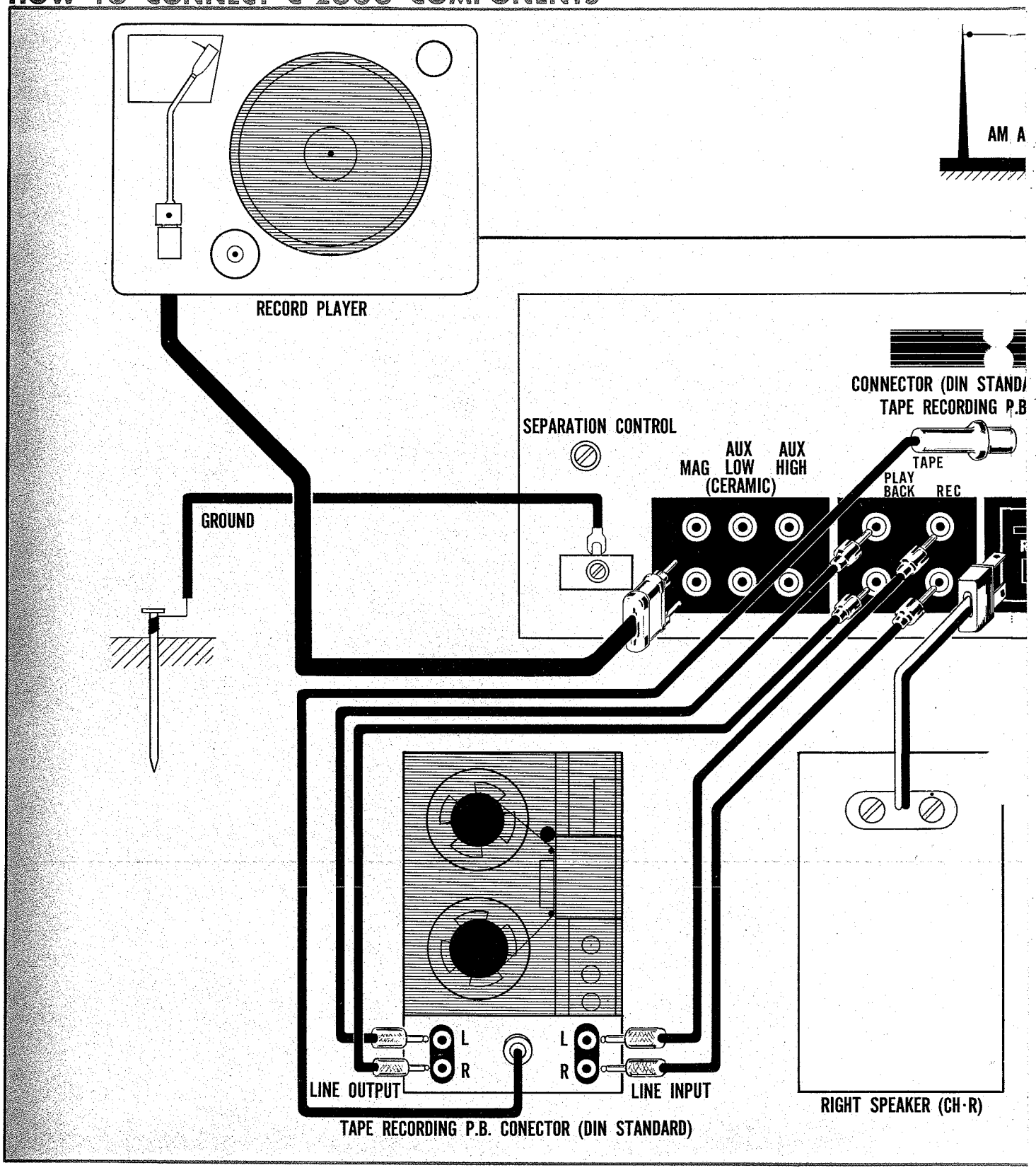
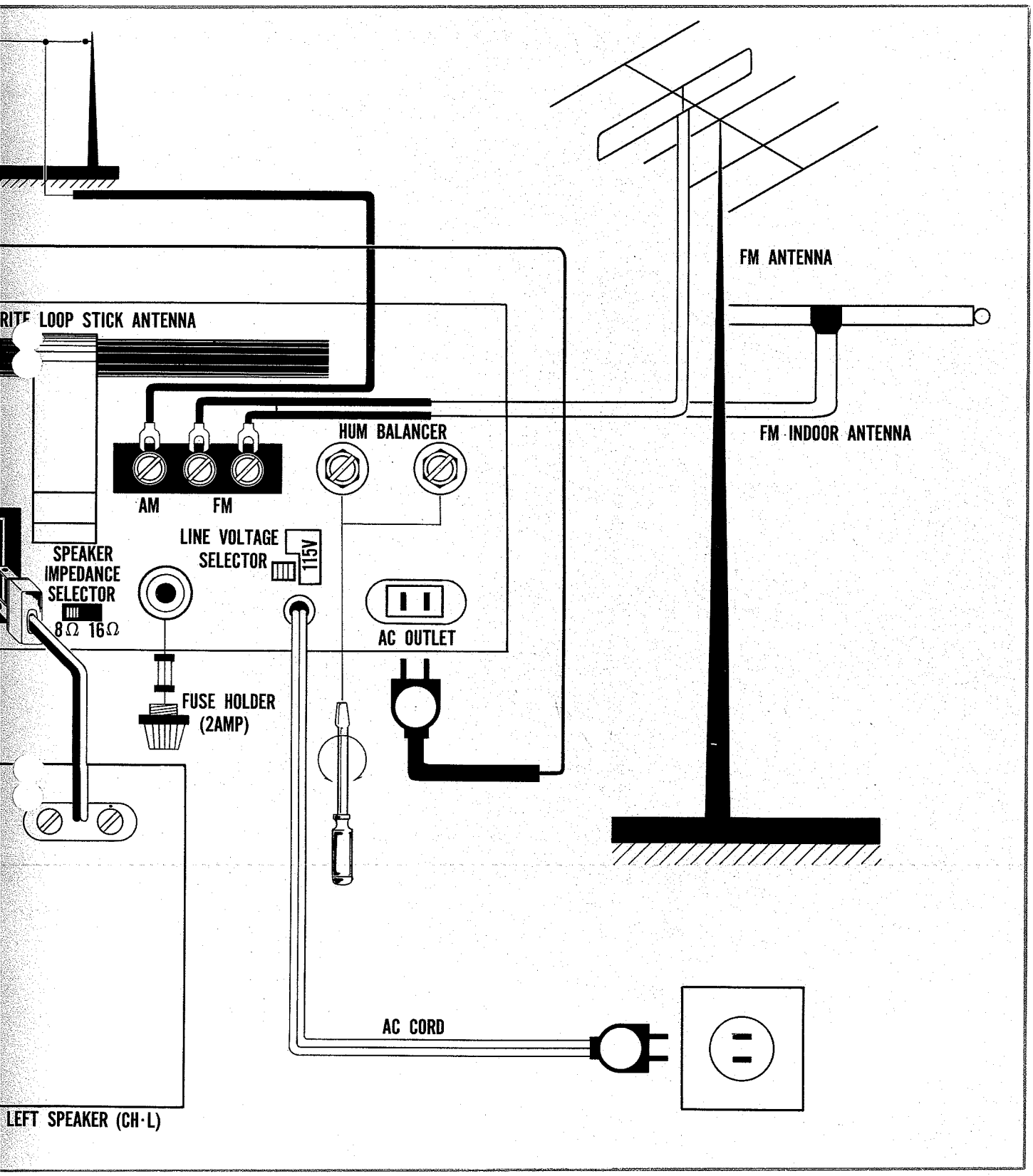


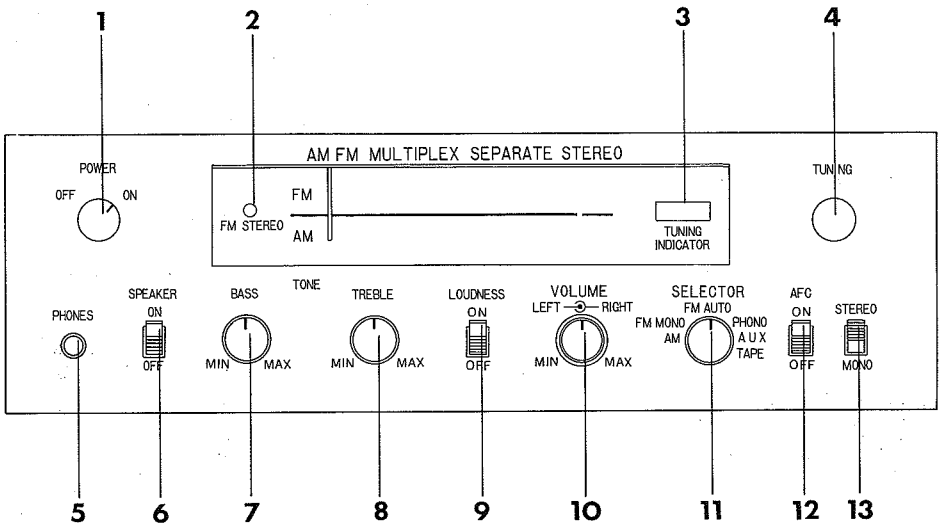
Fig. 2

HOW TO CONNECT C-2000 COMPONENTS




FM ANTENNA
RITE LOOP STICK ANTENNA
FM INDOOR ANTENNA
HUM BALANCER
AM
FM
LINE VOLTAGE SELECTOR
115V
SPEAKER IMPEDANCE SELECTOR
8Ω 16Ω
AC OUTLET
FUSE HOLDER (2AMP)
AC CORD
LEFT SPEAKER (CH·L)

FUNCTIONS OF KNOBS AND SWITCHES ON FRONT PANEL OF RECEIVER



1. POWER Switch
This is the AC switch for the entire receiver. It turns the receiver ON and OFF.

2. FM STEREO Indicator
If the broadcast being received is stereophonic, this FM STEREO indicator goes on. If the SELECTOR (11) is in the FM AUTO position, the broadcast is automatically received stereophonically. If the SELECTOR (11) is in the FM MONO position and the indicator goes on, turn the SELECTOR(11) to the FM AUTO position for stereophonic reception.
Note: This FM STEREO indicator works only when the SELECTOR (11) is in the FM MONO or FM AUTO position; it does not work when the SELECTOR (11) is in the AM position.
If you turn the TUNING knob (4) with the SELECTOR (11) in the FM MONO or FM AUTO position, the indicator may go on and off.

3. TUNING INDICATOR
This is the tuning meter for AM (medium wave), FM, and FM stereo programs. Turn the TUNING knob and let the meter needle swing to the right as far as possible. The farthest point the needle reaches is where the station has properly been tuned in.

4. TUNING
This is the tuning control for the AM (medium wave), FM, and FM stereo tuners.

5. PHONES
This is the jack for a set of stereo headphones. When you want to enjoy broadcasts or records privately, insert a stereo headphone plug into this jack. Since this jack is always live, use the SPEAKER ON-OFF switch (as explained in the next section) when you want to use a pair of headphones. (For best results, use the PIONEER SE-21 or SE-2P headphones.)

6. SPEAKER ON-OFF Switch
This switch activates and silence the speakers. When you use headphones, set the switch to the OFF position to silence the speakers.

7&8. BASS & TREBLE
These knobs control the bass and treble response of the receiver.

9. LOUDNESS CONTOUR
Set the switch to the ON position when you listen to broadcasts or records at low volume levels. In the ON position, lows and highs are automatically boosted so that the human ears' reduced sensitivity to low and high frequencies at low levels can be compensated for.

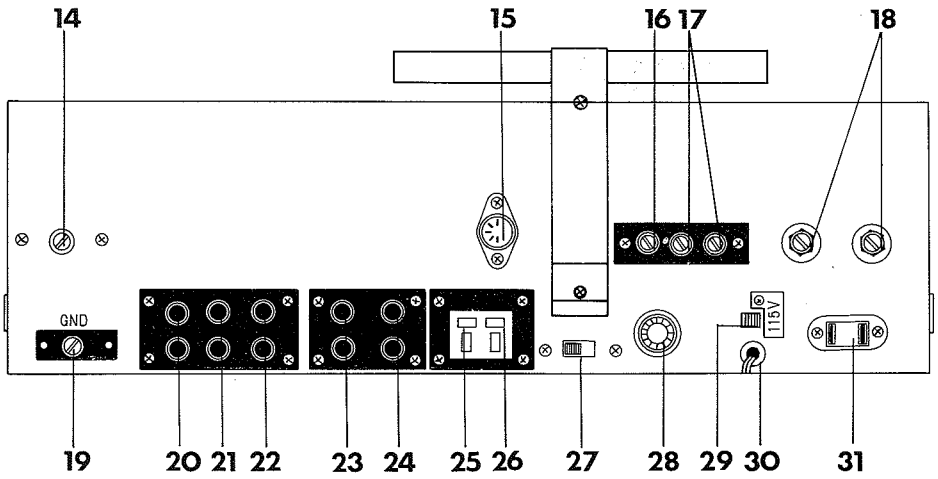
10. VOLUME
This provides control of volume levels of the receiver. The protuberant knob is for the left channel; the receding one is for the right channel.

11. SELECTOR
This is the input selector switch. It provides selection of program sources–records, tapes, radio programs, etc.
Its positions are:
AM..... for AM reception
FM..... for FM mono reception
FM AUTO...for FM mono-stereo automatic switching
PHONO.....for record playing by a record player equipped with a magnetic cartridge (player of the C-2000 is this type).
AUX..... for record playing by a ceramic/crystal cartridge player and for auxiliary external program sources
TAPE..... for playback of recorded tapes

12. AFC Switch
FM broadcasts are made on such high frequencies that the FM tuner tends to "drift" or de-tune itself from a desired station as time passes. To overcome this unfavorable phenomenon Automatic Frequency Control (AFC) is provided to keep a desired station "locked in" once it is tuned to. Set the switch at the OFF position when you select a station, and when you have tuned, change to the ON position.

13. STEREO, MONO Mode Switch
Set the switch at the MONO position when monophonic records are played, when a mono tape recorder is connected, or when auxiliary input terminals are used. Otherwise, set the switch at the STEREO position.

FUNCTIONS OF TERMINALS AND SWITCHES ON REAR PANEL OF RECEIVER



14. SEPARATION CONTROL
This adjusts separation between the right and left channels of FM stereo broadcasts. Since this control is factory-adjusted, do not touch it. If there is little or no stereo effect, however, adjust this control carefully. When an FM station transmits stereo separation test signals, turn the control and bring the sound from one of the speakers to a minimum. (The sound never goes out completely.) Once an optimum condition is attained, never touch it.

15. TAPE RECORD/PLAYBACK CONNECTOR("DIN" TYPE)
If your tape recorder is provided with a "DIN" type record/playback connector, plug it into this socket. Then, both recording and playback will be simple jobs.

16. AM ANTENNA TERMINAL
This is the antenna terminal for medium wave (AM) reception. (Refer to the section "ANTENNAS AND GROUNDING")

17. FM TERMINALS
These are the antenna terminals for both FM mono and FM stereo reception. (Refer to the section "ANTENNAS AND GROUNDING")

18. HUM BALANCERS
Their function is to minimize the receiver's hum level. Since they are adjusted for the lowest possible hum level before leaving the factory, usually there is no need to touch them. However, they should be adjusted if a connected player induces hum. The screw on the left is for the right channel; the one on the right is for the left channel.

19. GROUNDING TERMINAL
Connect the grounding wire of the player to this terminal. Also, ground the whole receiver by this terminal.

20. MAGNETIC PICKUP TERMINALS
Connect to these terminals the cables from the player's pickup. Connect the cable for the left channel to the upper terminal and the one for the right channel to the lower terminal.

21. CERAMIC/AUX LOW TERMINALS
Connect to these terminals the cables from a player equipped with a ceramic or crystal cartridge.

22. AUX HIGH TERMINALS
These are the terminals that accept external tuner, TV audio, or other audio outputs.

23. TAPE PLAYBACK TERMINALS
Connect to these terminals a tape recorder's LINE OUT to play back recorded tapes in good audio quality.

24. SIMULTANEOUS RECORDING TERMINALS
Connect to these terminals a tape recorder's LINE INPUT by a shielded cable to record the program that is being reproduced through the speakers. These terminals are always fed with the same signals as are reproducded through the speakers. Set the SELECTOR at whatever program source you want to record.

25. RIGHT SPEAKER TERMINAL
Connect the right channel speaker system to this terminal. In doing this, connect the plug secured at the end of the speaker cord with the white mark on the plug upward. The pin with the white mark is the positive.

26 . LEFT SPEAKER TERMINAL
Connect the left channel speaker system to this terminal. Connect the plug at the end of the speaker cord, with the while mark on the plug upward. The pin with the white mark is the positive.

27. SPEAKER IMPEDANCE SWITCH
The impedance of the speaker systems of the C-2000 is eight ohms. Set the switch at the "8 ohms" position.

28. FUSE HOLDER
The fuse used for the C-2000 is a two-ampere model housed in a glass tube. When it has to be replaced, be sure to use one identical in capacity, size, and type. Do NOT use one of a larger capacity. A larger-capacity fuse could cause trouble.

29. LINE VOLTAGE SWITCH
Choose between the 115 volts and 230 volts AC positions depending on the AC line voltage in the area where the C-2000 is actually used. In changing the position, first remove the stopper, next change to the proper voltage position, and then secure the switch IMMOVABLE by the stopper. Set the switch to the right for 230 volt operation; set it to the left for 115 volt operation.

30. AC CORD
This is the AC cord for this receiver.

31. AC OUTLET
This auxiliary AC outlet supplies AC power for the record player. This outlet is coupled with the POWER SWITCH (1) on the front panel.

ASSEMBLING RECORD PLAYER

First place the turntable platter and then the rubber mat, as illustrated in Fig. 3. In assembling the player, do as is explained in the instruction booklet supplied with the player unit.

Regarding the line voltage and frequency:

Prior to placing the platter onto the turntable, check the line voltage and frequency of the area where your C-2000 is actually used.

- Depending on the line voltage of your area, choose the 115 volts or the 230 volts position by the player voltage switch located on the right of the capstan.
- For line frequency changeover, replace the capstan. The C-2000 is fitted with either a 50 cps or a 60 cps capstan before it leaves the factory. If the capstan fitted is not right for the particular area where the C-2000 is actually operated, replace it with the spare capstan supplied with the player.
- In replacing the capstan, loosen with a driver the screw located on the lower (thicker) section of the capstan, pull the capstan out, and replace it with the right one.

Regarding stylus force:

- The C-2000's pickup is the statically balanced type, and the stylus force is adjusted for optimum performance before the unit leaves the factory. Shocks, etc. during transit, however, may necessitate adjusting. Therefore, check the stylus force by using the supplied stylus force gauge. The optimum force for the C-2000 pickup is two to three grams.
- In checking the stylus force, place the supplied stylus force gauge on the turntable platter, bring the stylus tip carefully onto the graduated surface of the gauge, and let the gauge stand level. What you read on the gauge is the stylus force.
- In adjusting the stylus force, loosen the screw found on the weight at the rear end of the pickup arm, and by moving the weight back and forth, adjust the stylus force. When the weight is moved backward, the pickup head becomes lighter, and when it is moved forward, the head becomes heavier.

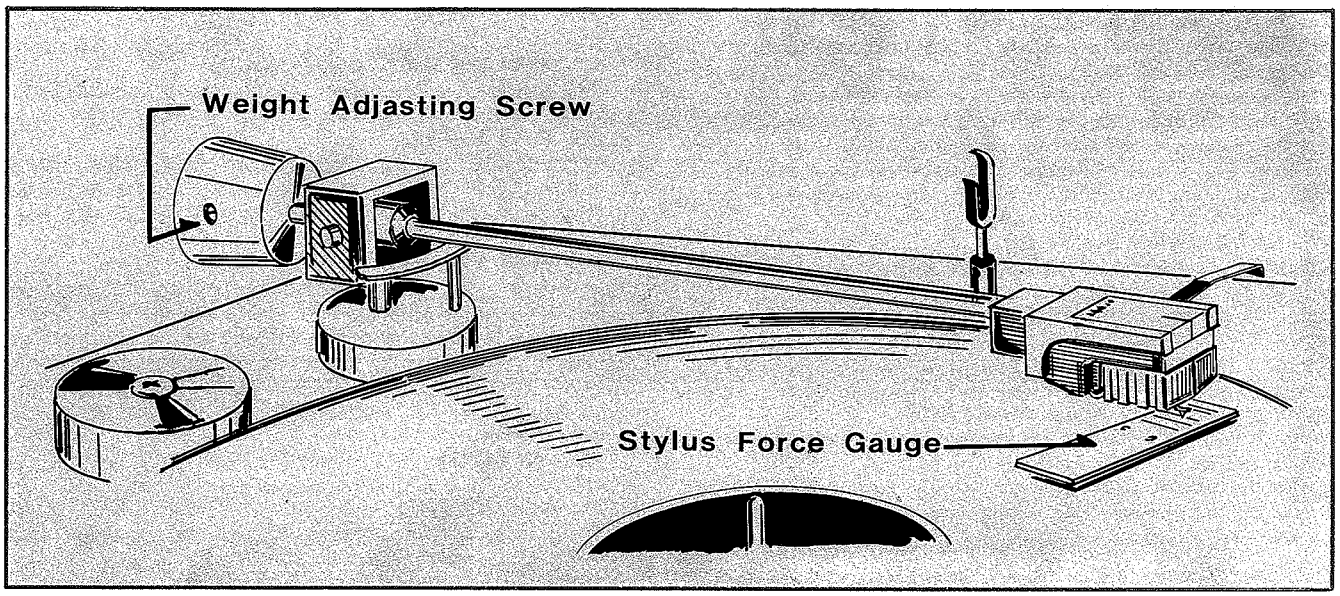


Fig. 3

(1) NAMES OF RECORD PLAYER PARTS

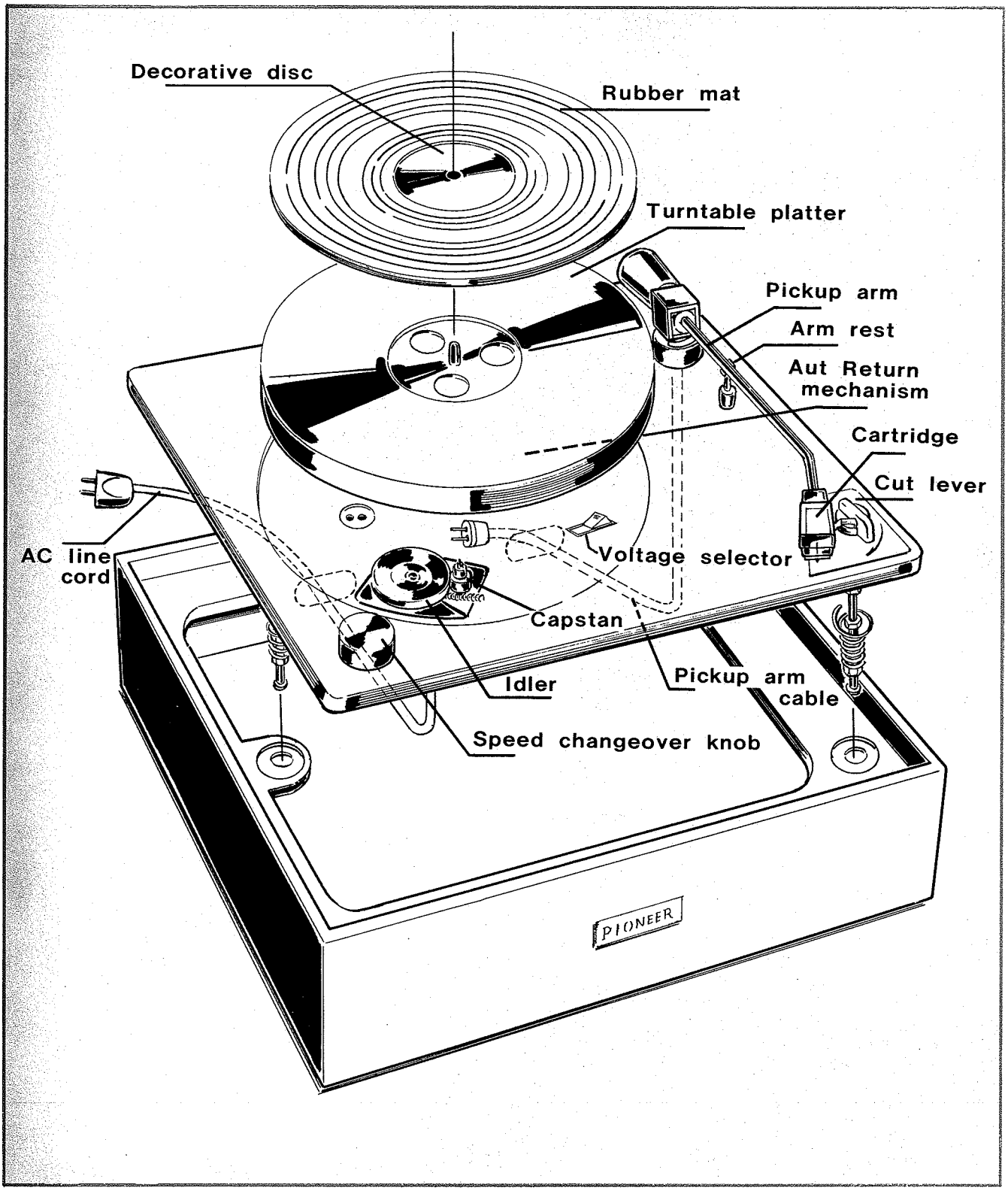


Fig. 4

HOW TO GET MOST FROM RECORD PLAYER

●When you want to stop playing a record before it completes its play, turn the cut lever all the way in the direction indicated by the arrow, and let go your hold. Then the pickup arm's automatic trip device goes into action. While this device is working, keep your hands off the pickup arm.

●When the record player is not in use, keep the speed change-over knob in the OFF position. If this were neglected, the idler could be deformed sooner or later and could cause noise when records are played.

●When nonstandard records–records whose diameters are less than 5 inches or records whose starting groove pitches are less than 4 m/m are played, the return device does not work.

●The diamond stylus fitted in the C-2000 cartridge can be used for playing both mono and stereo records.

●The stylus constitutes the very first link in the chain of a hi-fi system. Therefore after a record has been played, clean the stylus tip. Use a soft brush. Never touch it with fingers.

●The phono motor is the heart of a record player. Clean it from time to time with the following points in mind:
(a) Do not hold the turntable platter when it is revolving.
(b) Lubricate vital points occasionally.

●For lubrication, use supplied oil or good-quality machine oil. Points to be lubricated and amount of oil to be applied are as follows:

Motor oilcup.....	Once every three months, one or two drops of oil.
Idler shaft.....	Once every three months, one or two drops.
Turntable shaft	Once every six to 12 months, five or six drops.

●In applying oil, make sure that no oil adheres to the idler (made of rubber). If the idler were stained by oil, the rotation of the turntable would become irregular. Stains on the idler can be removed by carbon tetrochloride available at a drug store. Do not use a thinner. It would deform the idler.

●There is no need to oil the Auto Return mechanism often. If lubrication is necessary, apply one or two drops of oil to the shafts and contact surfaces.

●Stylus replacing:

Be sure to replace a stylus well before it is worn out. The C-2000 cartridge employs a diamond stylus. The life of a diamond stylus is anywhere between 200 and 300 hours. A stylus is pretty worn out after about 200 15-inch records have been played.

Replace a stylus as illustrated.

In mounting a new stylus, be sure to set its holder firmly in the receptacle of the cartridge.

Replacement styli are sold in the form shown within the dotted lines in the illustration. They are available as the Model PL-N6. Get in touch with stores where PIONEER products are sold.

●Cartridge replacing:

The C-2000 cartridge connections conform to the EIA Standard. Therefore the C-2000 cartridge shell can accept any EIA-conforming moving magnet type cartridge.

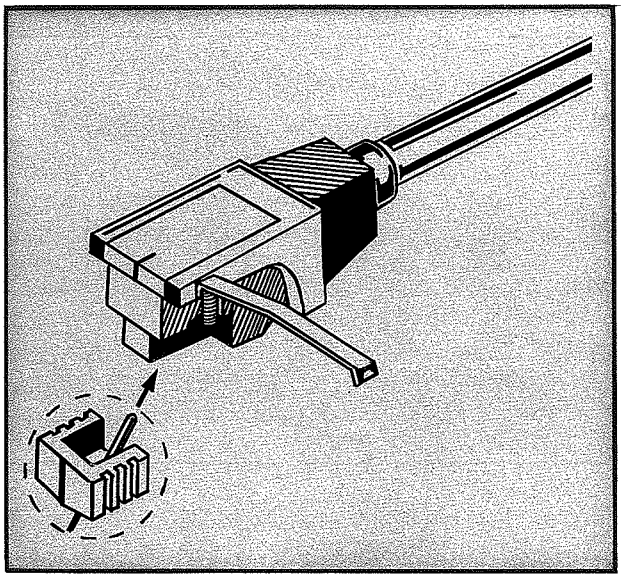


Fig. 5

CONNECTING SPEAKER SYSTEMS TO RECEIVER

(1) Connect the plugs at the ends of the speaker cords to the speaker terminals–the right channel speaker svstem to (25) and the left channel system to (26). In making these connections, insert the plugs firmly with the white-marked sides upward.
(2) Set the speaker impedance switch to the "8 ohms" position.

CONNECTING RECORD PLAYER TO RECEIVER

(1) Connect the plugs of the pickup arm cables coming from the rear of the record player to the magnetic pickup arm terminals (20)– the upper terminal for the left channel and the lower terminal for the right channel.
(2) Make the connections firm. Loose connections might induce hum and cause other noises.
(3) Get AC power for the record player from the auxiliary AC outlet (31) located on the rear of the receiver. This outlet is coupled with the receiver's AC power switch (1) on the front panel.

HOW TO PLAY RECORDS

The record player of the C-2000 incorporates an Auto Return device. Operate the player in the following manner:

●Playing records:

(1) Set the SELECTOR (11) to the PHONO position.
(2) Set the SPEED CHANGEOVER knob of the record player to the position indicating the speed of the record to be played.
(3) If you move the pickup arm toward the platter by the finger lift, the platter begins to rotate.
(4) Then gently lower the stylus tip and place it in the starting groove.
(5) When the record begins to play, operate the VOLUME (10), BASS (7), and TREBLE (8) controls for optimum performance.

●When the record is played out:

(1) When the record has been played out, the pickup arm returns automatically to the arm rest and the player shuts itself off.
(2) If you do not use the Auto Cut lever, return the pickup arm to the arm rest by hand, as you do with ordinary players.

●When you want to start playing or to stop playing in the middle of records:

(1) When you want to start playing a record in the middle, bring the pickup arm to wherever you want to start and lower the stylus, as you do with ordinary players.
(2) When you want to return the pickup arm to the arm rest before the record has been played out, turn the Auto Cut lever all the way in the direction indicated by the arrow and let go your hold. The arm returns to the arm rest automatically.
(3) You can also return the pickup arm manually.

ANTENNAS AND GROUNDING

The quality of FM broadcasts, much talked about for their superb sound, or familiar standard broadcasts depends largely upon the antennas used.
Noises increase or decrease in accordance with the manner in which antennas are employed. Be careful, therefore, in setting up antennas.

●Connect an AM (medium wave) antenna to the AM antenna terminal (16).

The internal ferrite loopstick antenna has sufficient sensitivity to receive local stations or when the field strength is very strong but in regions for from the stations or when the amplifier is located inside a ferro-concrete building, sensitivity may drop. In such a case, an outdoor antenna(similar to that shown in connecting diagram) should be erected and the lead-in wire connected to the AM Antenna Terminal (16). The outdoor antenna can be erected by utilizing a tree or other such standing objects away from buildings and insulators employed to minimize drop in sensitivity.

●Connect an FM antenna to the FM antenna terminals (17).

In areas far from FM transmitters or in ferro-concrete buildings, the supplied simple antenna may not suffice. In such cases, install an outdoor antenna.
Generally speaking, FM stereo broadcasts are enjoyably received in much smaller areas than FM mono broadcasts. It is often experienced that in an area where mono programs are enjoyed, stereo programs are received with much noise and distortion. In extreme cases, sparation between the right and left will be insufficient. Most of these troubles are traceable to the antenna used. It is recommended, therefore, that for FM stereo reception an exclusive FM antenna be set up out-of-doors so that an adequate input can be obtained at the antenna.

The C-2000 is provided with a simple T-shaped indoor antenna. Connect the antenna lead-in wire to the antenna terminals (17), as shown in Fig. 7. Fix the horizontal element of the "T" onto the wall, etc. by means of adhesive tape or thumbtacks. To find an optimum position, rotate the antenna while actually listening to a broadcast.
Three-element and five-element designs are the most common FM antennas on the market. Whether a three-element design is sufficient or a five-element model is necessary, depends on the conditions of the area where the receiver is actually used. Consult an antenna dealer.
Since both the outdoor antenna and the simple indoor antenna have directivity, it is necessary to find an optimum position and direction to obtain the best reception.

Grounding:

The C-2000 can be grounded by connecting a piece of wire (no grounding wire comes with the C-2000) to the ground terminal (19). Connect one end of the wire to the ground terminal on the receiver and the other end to the ground. The contact with the ground can be made through a metal bar attached to one end of the wire and buried underground or through a length of cable connected to an underground water pipe. Be sure NOT to connnect the ground wire to a GAS pipe. It might cause trouble.

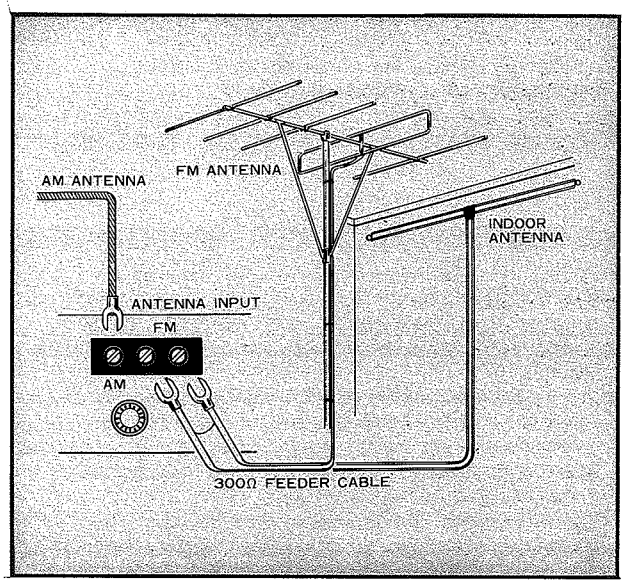


Fig. 6

HOW TO LISTEN TO BROADCASTS

The antenna is the most important factor in receiving broadcasts. Without an adequate antenna input, both standard broadcasts and FM programs may be ruined by harassing noises. Read the instructions on antennas once more and set up a standard antenna, clean, undis torted reception.

To receive AM (medium wave) broadcasts:

(1) Set the SELECTOR (11) to the AM position.
(2) Turn the TUNING knob (4) to select a station while watching the TUNING INDICATOR (3).
(3) Operate the VOLUME (10), BASS (7), and TREBLE (8) controls to suit your taste.

To receive FM broadcasts (mono and stereo):

(1) Set the SELECTOR (11) to the FM AUTO position.
(2) Set the AFC switch (12) to the OFF position. Then turn the TUNING knob (4) to select a station while watching the TUNING INDICATOR (3). If the broadcast being received is stereophonic, the FM STEREO Indicator (2) goes on, and an incorporated device automatically sets the receiver for receiving the broadcast stereo phonically; if the broadcast is monophonic, the device operates to receive it monophonically.
(3) After a station has been tuned in, set the AFC switch to the ON position.
(4) Operate the VOLUME (10), BASS (7), and TREBLE (8) controls to suit your taste.

- In fringe areas and other regions where signals are extremely weak, stereo broadcasts may be noisy or distorted if the receiver is set at the FM AUTO position. In such a case, set the receiver at the FM MONO position. Operate other controls in the same way as you do when the receiver is in the FM AUTO position.
- If the antenna input is small, the TUNING meter will not move briskly and there will be much noise.
- If tuning is not precise, the FM STEREO Indicator may go on but stereo effect will be inadequate and noise will increase. Therefore be sure to get the dead center of the channel.
- When, however, signals are not strong enough because your place is far from stations, the needle of the tuning meter may not go very far. In such a case, the farhtest point the needle reaches is where the station has properly been tuned in.

CONNECTING AND OPERATING TAPE RECORDER

By connecting your tape recorder to the C-2000 you can record broadcasts as they are received and records as they are played. Also, recorded tapes can be played back in full fidelity. Further, if your recorder is equipped with a "DIN" type record/playback connector, recording and playback will be extremely simple.

Simultaneous recording:

(1) If your tape recorder is a mono design, connect the upper terminal of the simultaneous recording terminals and the line input of your recorder by a shielded cable. If your recorder is a stereo model, connect the recorder's line input to both upper and lower terminals.
(2) The simultaneous recording terminals are constantly fed with signals. Therefore set the SELECTOR (11) on the front panel to the position that indicates the program source you want to record.
(3) Control recording levels by the level control on the recorder. Neither VOLUME, BASS, nor TREBLE control of the receiver affects in any way the sound to be recorded.

Playback of recorded tapes:

(1) If your tape recorder is a mono model, connect the upper playback terminal (23) and the LINE OUT of your recorder by a shielded cable. If your recorder is a stereo design, connect the LINE OUT to both upper and lower terminals.
(2) Set the SELECTOR (11) to the TAPE position.
(3) If your tape recorde is the mono type, set the STEREO-MONO mode switch to the MONO position.
(4) Set the VOLUME, BASS, and TREBLE controls at levels that suit your taste.

Using "DIN" type record/playback connector:

With a conventional tape recorder, recording on tape and playback of recorded tapes require two to four shielded cables. If, however, a tape recorder equipped with a "DIN" type record-playback connector is used, one multi-conductor cable does both recording and playback at simple operation and obviates the need to use different cables. Connect a record-playback connector as follows:

(1) Connect the record-playback socket (15) of the receiver and the connector of the tape recorder by a record-playback connector cable.
(2) To record, set the SELECTOR (11) to the position indicating the program source you want to record.
(3) Adjust recording levels by the level control on the tape recorder.

MAINTENANCE OF WOOD CABINET

- Wax the wood cabinets once every three to four months. (Use supplied wax.) Fine furniture looks will remain for good.

(1) Apply wax to a dry piece of cloth and go over cabinet surfaces evenly.
(2) Using another dry piece of cloth, polish by going over surfaces along grain while removing superfluous wax from surfaces.
(3) When wax is not in use, keep container's cap on tight and preserve it in cool, dark place. Wax is INFLAMMABLE and therefore must be kept away from fire.
(4) Wax on hands can be washed off with soap.

●Cabinet design and minor repair work:

The wood parts of the C-2000 are of top-grade walnut and their surfaces are finished in oil to accentuate the original elegance of the material used. As a result, the appearance of the C-2000 is soft and quiet.

If surfaces are injured, go lightly over the injured spots with steel wool or sand-paper. Then apply supplied wax, and when the wax has dried, clean the spots with a dry piece of cloth and remove superfluous wax. Then scratches or injuries will become unnoticeable. When a serious dent is made on a surface, place a wet piece of cloth over it and run an iron on it for a while. Then the dent will disappear.

WHEN THE C-2000 HAS TO MAKE A LONG TRIP

(1) Secure the idler immovable. If the idler were left loose during transit, it could be damaged. Fasten the idler with an idler clamper.
(2) Secure the pickup arm immovable. Fasten the arm with a ribbon, etc. Do not leave it loose.
(3) Place a stylus cover on the stylus. Keep the stylus covered with a stylus cover during transit. Or remove the stylus.
(4) Remove the turntable platter. Take off the turntable and pack it separately.

SPECIFICATIONS OF THE C-2000

RECEIVER SECTION

(Tubes & Diodes Used) 13 Tubes & 12 Diodes

●Tubes
12AX7.....(2) (AF Voltage Amplification)
6BM8.....(4) (AF Voltage Amplification, Phase Inversion, Power Amplification)
6BA6..... (2) (AM, FM IF Amplification)
6AU6..... (1) (FM Limiting)
6BE6..... (1) (AM Conversion)
6AQ8..... (1) (FM HF Amplification, Conversion)
6EA8..... (2) (MPX, Pilot Signal Selection & Amplification, 38 Kc Amplification, Stereo Indicator Signal Amplification)

●Diodes
OA-70•••••(3)(FM Detection, Tuning Meter)
OA-79•••••(6)(MPX Switching, AM Detection, MPX Auto Select)
SD-1A•••••(2)(Power Supply)
IS-351•••••(1)(FM AFC)

(Audio Section)

●Circuitry:	6BM8 in Push-Pull
●RMS Rated Power Output:	11 Watts per Channel (Distortion Better Than 2% at 1 Kc)
●Music Power Output:	34 Watts (EIA)
●Frequency Response:	30-20,000 cps, ± 3 db (over all)
●Signal-to-Noise Ratio:	MAG, 60 db (Volume Max, Tone Controls Defeated at RMS Output, IHF); AUX HIGH, 75 db
●Input Terminals & Gains	(Inputs for RMS Output) PHONO MAG: 3 mV PHONO CER/AUX LOW: 40 mV TAPE: 350 mV AUX HIGH: 430 mV
●Output Terminals	Speaker Impedances: 8 Ohms/16 Ohms (Switchable) Stereo Headphone Jack Simultaneous Tape Recording (TAPE REC) Tape REC/P.B. Connector (DIN Type)
●Equalization	PHONO MAG: NF Type RIAA
●Tone Controls	BASS: — 10db, + 10db (at 50 cps) TREBLE: — 10db, + 6db (at 10 Kc)
●Loudness Contour	ON/OFF Switchable, + 8 db (at 50 cps) and + 7 db (at 10 Kc) at — 30 db Volume Setting
●Residual Noise:	2 mV/8 Ohm Load at Minimum Volume Setting with Tone Controls Defeated

(FM Tuner Section)

●Circuitry:	Cathode Injection Self-oscillation type Front End, 3 IF Stages, Wide Band Detector
●Frequency Range:	88 Mc — 108 Mc
●Usable Sensitivity:	2.5 μV (IHF)
●Antenna Input:	300 Ohms Balanced, "T"-Shaped Folded Dipole Antenna Supplied
●Tuning Indicator:	Tuning Meter for AM and FM
●Accessory:	Automatic Frequency Control (AFC) Circuit

(FM MPX Section)

Circuitry:	Time-Switching, Automatic Mono/Stereo Selecting
●Channel Separation:	Better Than 35 db at 1 kc
●Stereo Indication:	Neon Light

(AM Tuner Section)

●Frequency Range:	535 — 1,605 kc
●Usable Sensitivity:	9 μV (IHF)
●Antenna:	Built-in ferrite loop stick antenna with terminal for external antenna
●Tuning Indicator:	Tuning Meter for AM and FM

(Power Supply, Etc.)

●Power Supply System:	Voltage-doubler Rectifier using Silicon Diodes.
●Line Voltage & Frequency:	115 V / 230 V (Switchable), 50-60 cps AC
●Power Requirement:	115 Watts (Max)
●Accessories:	Simplified Folded Dipole FM Antenna (1), AM Antenna Wire (1), Polishing Cloth (1), Pin Plugs (4), Instruction Manual (1), Wax (1)

RECORD PLAYER SECTION

●Type:	Auto Return System (with Auto Cut Device), Oil-Finished Walnut Cabinet
●Cartridge (Model PL-C6):	1. Moving Magnet Type 2. LP/EP Diamond Stylus (Tip 0.7 Mil) with Stylus Replacing Knob, Replacement Stylus (Model PL-N6) 3. Optimum Stylus Force: 3 — 4 Grams 4. Frequency Response 20-21,000 cps ±2 db
●Pickup Arm:	1. Statically Balanced Type, Pipe Arm 2. Cartridge Connections Conforming to EIA Standard
●Phono Motor:	1. Four-Pole Synchronous Motor, Auto Return & Auto Cut Devices, Idler Auto Control 2. Speed: 33⅓, 45 rpm—2 Speed 3. Turntable: 10-Inch Diameter Iron Platter 4. Wow: Better Than 0.2 % 5. Line Voltage 115/230V (Switchable), AC; Line Frequency: 50 or 60 cps (Capstan Replacement) 6. Power requirement: 20VA 7. Dimensions: 6 7/16" x 16 15/16" x 13 3/8" 8. Weight: 16 lbs. 8 oz.

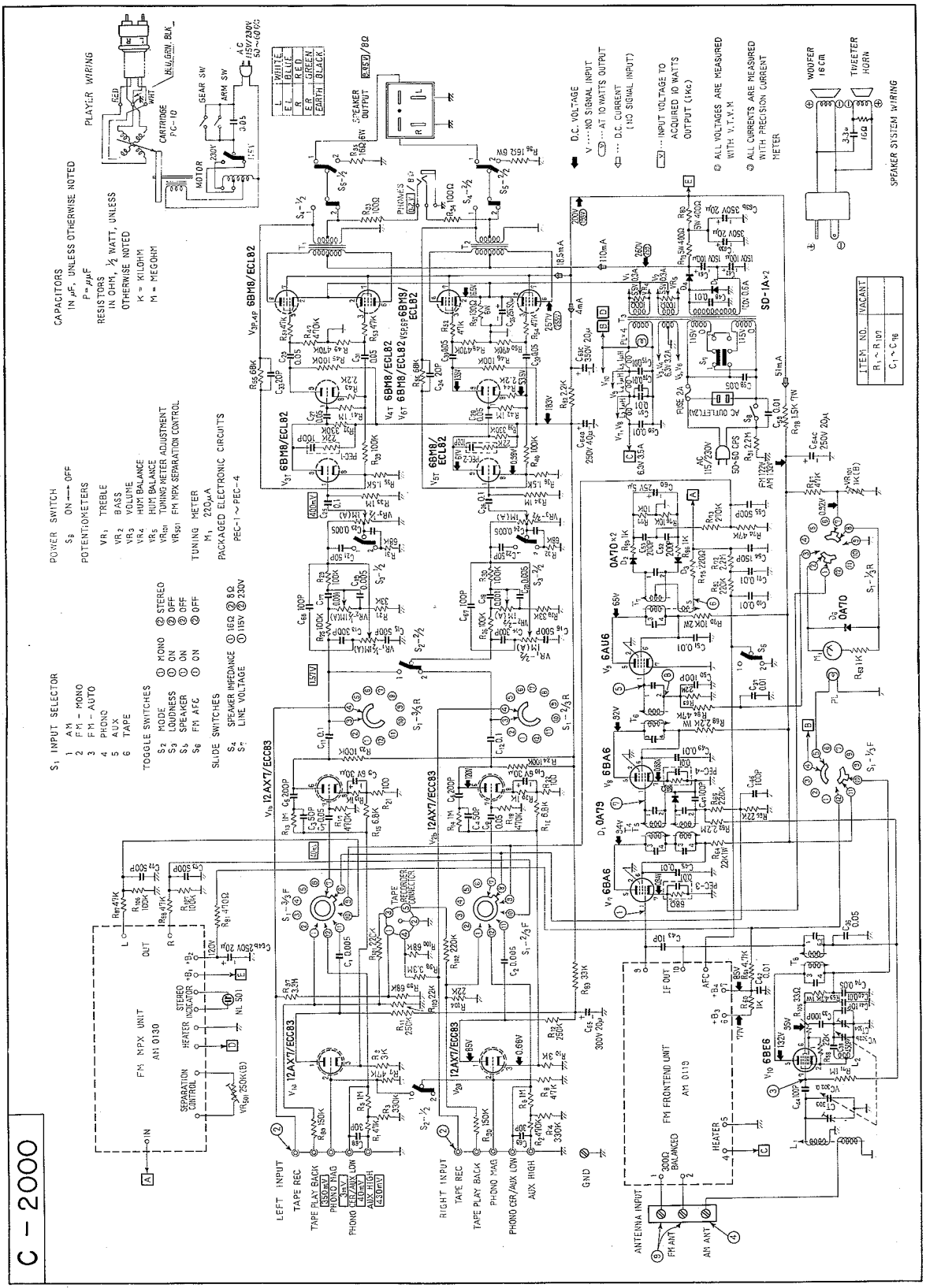
AMPLIFIER SECTION

●Enclosure Cabinet:	1. Walnut Enclosure Oil-Finished on All Sides 2. Dimensions: 6 15/16" x 16 15/16" x 13 3/8" 3. Weight: 28 lbs. 10 oz.

SPEAKER SYSTEM SECTION

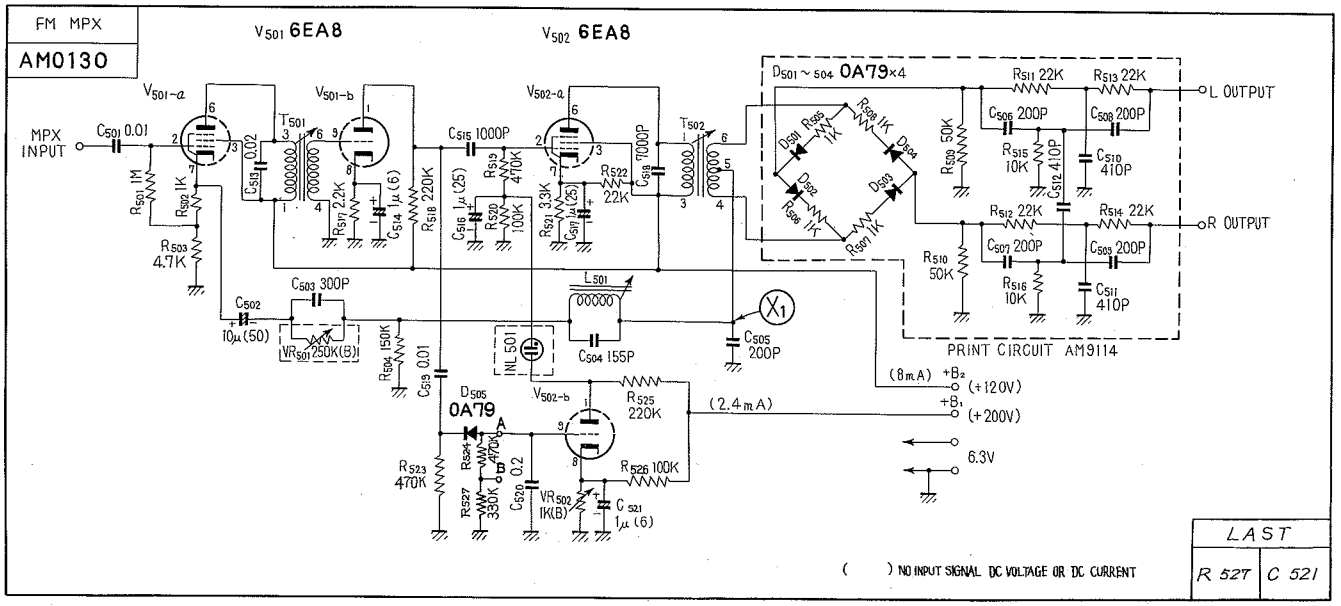
1. Walnut Enclosure Oil-Finished on All Sides
2. Two-Way System
3. Mounted Speakers: 6.5-Inch Woofer, Horn-Type Tweeter
4. Impedance: 8 Ohms
5. Overall Frequency Response: 50-16,000 cps
6. Dimensions: 13 3/8" x 8 1/4" x 8 1/4"
7. Weight: 9 lbs. 15 oz.

CIRCUIT OF THE C-2000



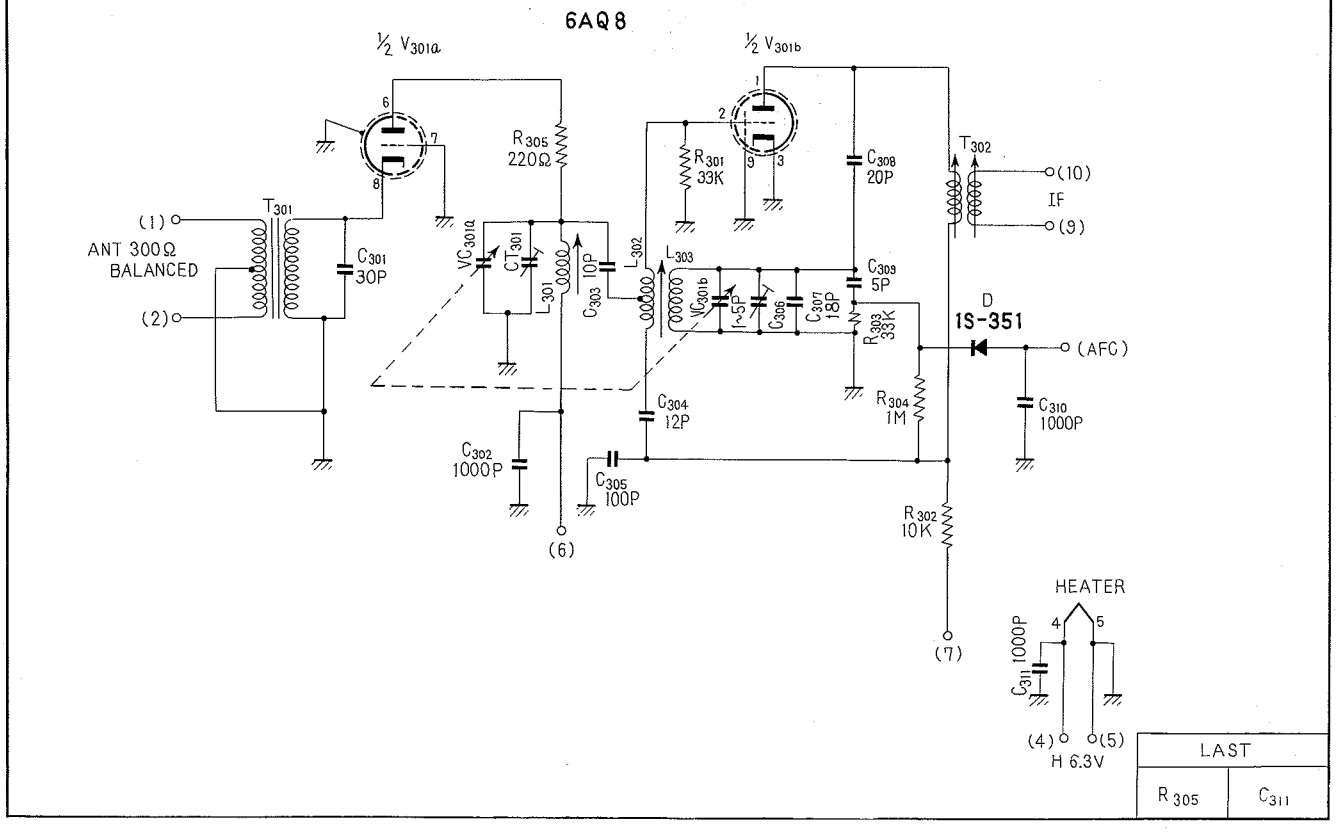
FM MPX

AM0130



FM FRONT END

AM0119



PIONEER

PIONEER ELECTRONIC CORPORATION
15-5, 4-CHOME. OHMORI-NISHI, OHTA-KU, TOKYO, JAPAN
PIONEER ELECTRONICS U.S.A. CORPORPORATION
Empire State Building 350 Fifth Ave., New York, N.Y., U.S.A.
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